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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,693

01/02/2004

Dan M. Manole

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4112

832

7590

12/07/2006

BAKER & DANIELS LLP
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EXAMINER

JIANG, CHEN WEN

ART UNIT

PAPER NUMBER

3744

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,693

Applicant(s)

MANOLE, DAN M.

Examiner

Chen-Wen Jiang

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5,7-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,7-9,11,12,17-24 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 10 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 3744

DETAILED ACTION

1. In view of the appeal brief filed on 9/18/2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejections are set forth below.

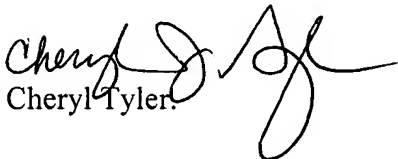
To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing

below:


Cheryl Tyler.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 10 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monfarad (U.S. Patent Number 6,687,122) in view of Viswanath et al. (U.S. Patent Number 6,493,223) or Bear (U.S. Patent Number 6,796,372).

In regard to claims 10 and 13-15, Monfarad discloses a compressor refrigeration sink module for use in cooling electronic component environments. Referring to Figs.3-8, the module comprises hermetic compressor 12,612, frame/housing 74,774,66,766, cooling plate 20,620, optional receiver, conventional air-cooled condenser 14,614 and expansion device 18,618. Monfarad discloses the invention substantially as claimed. The size and design of prior art liquid-based cooling system often required that the major components of the prior art liquid-based cooling system be centrally located. However, Monfarad does not disclose plate with fin type condenser. Viswanath et al. and Bear disclose plate with fin/fluid-cooling type condenser in

Art Unit: 3744

the same field of endeavor for the purpose of condensing the refrigerant. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the apparatus of Monfarad with a plate with fin/fluid cooling type condenser in view of Viswanath et al. or Bear so as to condense the refrigerant.

In regard to claim 16, the matching areas are design choice depending on the heat transfer requirement and structure arrangement of the device.

4. Claims 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monfarad (U.S. Patent Number 6,687,122) in view of Beebe et al. (U.S. Patent Number 6,148,635).

In regard to claims 10 and 13, Monfarad discloses a compressor refrigeration sink module for use in cooling electronic component environments. Referring to Figs.3-8, the module comprises hermetic compressor 12,612, frame/housing 74,774,66,766, cooling plate 20,620, optional receiver, conventional air-cooled condenser 14,614 and expansion device 18,618. Monfarad discloses the invention substantially as claimed. The size and design of prior art liquid-based cooling system often required that the major components of the prior art liquid-based cooling system be centrally located. However, Monfarad does not disclose plate type condenser. Beebe et al. disclose plate type condenser in the same field of endeavor for the purpose of condensing the refrigerant. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the apparatus of Monfarad with a plate type condenser in view of Beebe et al. so as to condense the refrigerant.

Allowable Subject Matter

5. Claims 4,5,7-9,11,12,17-24 and 26-30 are allowed.

Art Unit: 3744

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809.

The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chen-Wen Jiang
Primary Examiner

